Draw and design a use case diagram for an ATM cash machine. The system includes 2 actors:

A customer, who draws money from his account either on the money chip on his bank card or in cash and a security man who fills money into the ATM You must also write a checkAccountBalance use case that describes the system and actor interactions/ flow and events, entry and exit conditions.

Use Case UC1: ATM withdrawal

Scope: ATM Machine

Primary Actor: Customer

Customer Stakeholders and Interests:

- Customer - wants to withdraw money with no access errors.

- Security Guard - (Service Coordinator)

- Bank Account - Debits funds and applicable service charges

Pre-conditions : ATM machine is accessible and is in no need of service. Customer is validated and authorized.

Success Guarantee: Withdrawal transaction is processed. Customer account is debited. Applicable fees are deducted and recorded. Withdrawal receipt is generated.

Main Success Scenario:

- Customer is authorized to access the system

- Customer chooses action to transfer money to card or withdraw cash from account

- Customer enters withdrawal amount

- System checks account balance

- System debits Customer bank account

- System dispenses money

- System prints paper receipt or send email

Extensions

- Customer can cancel the transaction at any time.

1. Check user Account Balance

    a.   Money in account but daily withdraw limit is breached

        i.   System checks Customer daily withdrawal limit. Daily withdrawal limit is breached.

        ii.   System relays message exits to action menu

    b.   Withdraw amount is greater than funds

        i.   System checks withdraw amount withdraw amount is greater than account balance

        ii.   Customer can transfer money to account

        iii. Customer can choose a different account

    c.   Customer deposits funds to increase withdraw amount

        i.   System deposits money into customer account

        ii.   System validates funds release timeframe

    d.   Customer chooses incorrect withdraw amount

        i.   Validation of customer amount client

        ii.   Customer can re-enter the amount

        iii. Customer can accept the withdraw amount

    e.   Customer is out of network

        i.   System levies access fees and debit Customer account

2. Customer cannot access funds from account : system is unavailable

    a.   Machine is out of money

- System flags the Service Coordinator/ Security Guard to refill the ATM

  b. Machine needs servicing

- System flags the Service Technician machine needs mechanical service

3. System cannot print receipt of transaction

- Flags Customer and uses email access

Use Case UC2: ATM Service

Scope: ATM Machine

Primary Actor: ATM Security Guard / Service Coordinator

Customer Stakeholders and Interests:

- Customer - Wants his transaction completed and his money

- ATM Machine - Wants to be up and accessible

- Bank - wants to have customers happy and transactions working

Pre-conditions : ATM Machine is not working correctly

Success Guarantee: Withdrawal transaction is processed. Customer account is debited. Applicable fees are deducted and recorded. Withdrawal receipt is generated.

Main Success Scenario:

- System Flags Service Coordinator / Security Guard
- System sends ATM location ID to the Service Coordinator requests ATM refill
- Service Coordinator checks the refill amount and bill type
- Service coordinator access panel enters employee authorization code
- System authenticates employee code
- Service Coordinator gains access and replaces bills
- Machine state is online

Extensions

1. System has enough bills, System needs mechanical service

   a.   Service coordinator flags systems to initiate Mechanical Service

   b.   System initiates Mechanical Service and terminates ATM Access

2 . Employee Authorization code does not work

   a.   Employee flags system of failure and System terminates ATM Access